APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,046	02/05/2004	Philip R. Houston	BUSI-P01-001	5450

28120   7590   05/10/2010
ROPES & GRAY LLP
PATENT DOCKETING 39/41
ONE INTERNATIONAL PLACE
BOSTON, MA 02110-2624

EXAMINER
MCCORMICK, GABRIELLE A

ART UNIT	PAPER NUMBER
3629	

MAIL DATE	DELIVERY MODE
05/10/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 April 2010</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Status of Claims

1.   This action is in reply to the amendment filed on April 14, 2010.

2.   Claims 1, 6 and 18-19 have been amended.

3.   Claims 1-19 are currently pending and have been examined.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claims 1-5, 7-12 and 18 are rejected as being directed to non-statutory subject matter. Independent claim 1 is a method claim that recites process steps that are not tied to a particular machine. Based on recent Federal Circuit decision (see *In re Bilski*), an applicant may show that a process claim satisfies 35 USC 101 either by showing that his claim is tied to a particular machine, or by showing that his claim transforms an article. (See Benson, 409 U.S. at 70). First, as illustrated by Benson, the use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility. (See Benson, 409 U.S. at 71-72). Second, the involvement of the machine or transformation in the claimed process **must not merely be insignificant extra-solution activity.** (See Flook, 437 U.S. at 590).

6.   Though claim 1 recites the use of a processor to review the record to detect behaviors responsive to a stimulus, the actions of the processor are merely insignificant extra-solution activity as they amount to merely displaying the record for review. The specification at P[0054], pages 19-20, discloses:

> *The optional detection process 600 may be a software process operating on a conventional computer system that is capable of reviewing the record stored in database 540 and determining the occurrence of possible deceptive behavior within the recorded disclosure. To*

> this end, the detection process *600* may include a software process capable of analyzing the speech or text of a corporate disclosure and identifying within the speech or text certain trigger words that are indicative of deceptive behavior. In further optional embodiments, the detection process *600* may include a video processor that is capable of analyzing video data stored as part of the record. The video data may be analyzed to determine suspected indicia of deceptive behavior, such as sudden physical movements of the representative.

7.   Claim 1 requires the detection of behavior to 1) be in response to a stimulus and 2) be linked to a timing element in order to determine clusters of behaviors. The speech/text analysis only is disclosed as identifying trigger words and is silent as to whether the trigger words are in response to a stimulus. Further, this type of analysis does not provide a timing element. Therefore, the processor that is used to review the record with is the video processor where the data is analyzed to determine sudden physical movements. It is understood, therefore, that the reviewing that determines behaviors in response to a stimulus and with a timing element so that clusters can be determined, is performed by a person viewing the video tape through the processor. The video processor does not perform any of the identification of a stimulus or the determination of a cluster of deceptive behaviors occurring within a time interval. Thus, these activities, which are the heart of the invention, are not tied to a particular machine. Therefore, the use of the processor by a reviewer merely provides insignificant extra-solution activity.

8.   Because the applicable test to determine whether a claim is drawn to a patent-eligible process under 35 USC 101 is the machine-or-transformation test set forth by the Supreme Court, claim 1 fails that test and is therefore rejected under 35 USC 101.

Claim Rejections - 35 USC § 112

9.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10.   Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

11.   Independents claim 1 and 6 have been amended such that the record is reviewed/analyzed **with a processor** to detect deceptive behaviors responsive to a stimulus. Note: The Examiner has discussed a particular interpretation of claim 1 with respect to the rejection under 35 U.S.C. 101. With regard to this following explanation, the Examiner is interpreting the processor to perform the reviewing/analyzing and detection steps.

12.   Page 19-20 of the specification states: *The optional detection process **600** may be a software process operating on a conventional computer system that is capable of reviewing the record stored in database **540** and determining the occurrence of possible deceptive behavior within the recorded disclosure. To this end, the detection process **600** may include a software process capable of analyzing the speech or text of a corporate disclosure and identifying within the speech or text certain trigger words that are indicative of deceptive behavior. In further optional embodiments, the detection process **600** may include a video processor that is capable of analyzing video data stored as part of the record. The video data may be analyzed to determine suspected indicia of deceptive behavior, such as sudden physical movements of the representative.*

13.   Claims 1 and 6 require the detection of deceptive behavior to 1) be in response to a stimulus and 2) be linked to a timing element in order to determine clusters of behaviors. The speech/text analysis only is disclosed as identifying trigger words and is silent as to whether the trigger words are in response to a stimulus. Further, this type of analysis does not provide a timing element.

14.   The limited recitation of the capabilities of the video processor is not sufficient to adequately describe the review of the record to detect deceptive behavior in response to a stimulus. There is no disclosure to support how the processor differentiates deceptive behaviors from non-deceptive behaviors. The disclosure only stipulates that the processor is capable of discerning sudden

physical movements, although the process by which the processor determines such movements is not disclosed.

15.   Applicant's arguments with regard to claims 8 and 16 and the amendments to claims 18 and 19 are persuasive and sufficient to overcome the previous rejections.

Claim Rejections - 35 USC § 103

16.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17.   <u>Claims 1-10 and 12-16</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Al Bandar et al. (US Pub. No. 2004/0181145, hereinafter referred to as "Al Bandar") in view of Greenfield ("It's Illegal to Lie to Stockholders, but Not to Employees; [Metro Final Edition]", The Sacramento Bee. Sacramento, Calif.: Jul 6, 1998, pg. B.5).

18.   **Claims 1, 6 and 12-13:** Al Bandar discloses

- A record of a disclosure on a display; (P[0112] and P[0114])

- A processor for analyzing the record to determine the presence of a cluster of deceptive behaviors responsive to a stimulus; (P[0022-0026]: analysis is performed automatically using a machine; P[0029]: channels are coded by behavior; P[0034]: channels are analyzed to determine deceptive behavior; P[0067]: channel data is grouped (i.e., a cluster is determined) to make a decision about behavioral states.

- Clusters include data that begins during a stimulus time interval and a predetermined time after stimulus termination. (P[P[0064]: data collated over fixed (i.e., predetermined) length of

time) and behaviors that begin after the time interval and before the end of a prior deceptive

behavior (P[0095]: statistics are calculated for fixed or variable time periods, for example, the

time that relates to the specific answer to a question; P[0098-0099]: statistics from each

channel are concatenated (i.e., linked in a series) to produce a vector (thus the vector is a

cluster of behaviors that are captured and analyzed by the individual channels). "Because

some behaviors may have a slow pattern and other are fleeting (such as microexpressions),

it may be advantageous to collate the channel statistics from one or more time periods to

create the vector. Each channel may have its own optimum measurement time period."

P[0134]: statistics are collected for the whole of each answer; P[0137]: channel statistics

were accumulated over the length of the answer and the answer was classified as either the

truth or a lie; Thus, through the collation (bringing together and comparing) of the various

channel stats, each with its own time measurement period, a cluster will contain behaviors

that began after one time period ended but will overlap with another behavior. As statistics

are collected for the time it takes to answer a question, the cluster that relates to the answer

will include behavior that begun early in the answer and would be clustered during a fixed

length of time and behaviors that occurred later during the answer (such as the person's

complete verbal response) and thus produce a vector (cluster) that is produced by collecting

data over a variable length of time that corresponds to the answer.).

- Excluding deceptive behaviors that begin after the time interval and are not concurrent with
  prior behaviors. (P[0139]: vectors between answers are ignored; thus behaviors that occurred
  during gaps between answers are excluded from the cluster that relates to preceding answer.
  See also P[0091-0092] where the system can differentiate between behaviors that relate to
  an eye blink and a person looking down. Thus a cluster of behaviors relating to eye blinking
  do not include behaviors relating to looking down.)

- Annotation of the record to indicate the presence of a cluster including a reference to each
  type of deceptive behavior, wherein the types of behaviors are retrieved from a database;
  (P[0013]: frames are coded manually and P[0009]: coding comprises a record of whether a

particular behavior took place and opinion of the judge; P[0011]: patterns are detected that

indicate behavioral state; P[0024-0025]: automatic coding, therefore the database retrieval is

inherent)

19. The Examiner notes that the content of the annotation is **nonfunctional descriptive data** and is

not functionally involved in the steps recited. **The annotation of the record would be**

performed regardless of the descriptive content of the annotation. Thus, this descriptive

data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re*

Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579,

32 USPQ2d 1031 (Fed. Cir. 1994).

20. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to have included annotations that includes the type of behavior, the numbers of

behaviors within a cluster of behavior, the stimulus, subject of the stimulus and the reply because

such data does not functionally relate to the steps in the method claimed and because the

subjective interpretation of annotation data does not patentably distinguish the claimed invention.

21. Al Bandar does not disclose a corporate disclosure.

22. Greenfield, however, discloses that federal law requires honesty with regard to communications

with shareholders (pg. 1; para. 4) and if the corporation misrepresents itself, investors are entitled

to sue (pg. 2; para. 5).

23. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to have included corporate communications, as disclosed by Greenfield in the system

disclosed by Al Bandar, for the motivation of providing a method of determining truthfulness of

corporate executives during the course of a law suit.

24. The Examiner notes that the type and content of disclosure is **nonfunctional descriptive data**

and are not functionally involved in the steps recited. **The detection of deception behavior**

would be performed regardless of the nature of the disclosure analyzed. Thus, this

descriptive data will not distinguish the claimed invention from the prior art in terms of

patentability, *see In re Gulack,* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry,* 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

25.   Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included corporate disclosures because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of a type of data analyzed does not patentably distinguish the claimed invention.

26.   **Claims 2-5:** Al Bandar discloses questions posed and subdividing the disclosure into time periods (P[0095]) and reviewing the record for pre-determined non-verbal responses (P[0057]).

27.   **Claim 7:** Al Bandar discloses a pre-determined period of time (P[0064]) and collecting data the time that relates to the specific answer to a question (i.e., time after the stimulus ends) (P[0095]) but does not disclose 5 seconds.

28.   Though Al Bandar does not disclose approximately 5 seconds, this difference is only found in the **nonfunctional descriptive data** and is not functionally involved in the steps recited. **The review of the behavior (i.e., data collection) would be performed regardless of length of the time period.** Thus, this descriptive data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack,* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry,* 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

29.   Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included five seconds because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the length of the time interval does not patentably distinguish the claimed invention.

30.   **Claims 8 and 16:** Al Bandar detecting a deceptive behavior that is excluded from the cluster of deceptive behaviors. (P[0139]: vectors between answers are ignored; thus behaviors that occurred during gaps between answers are excluded from the cluster that relates to preceding answer. See also P[0091-0092] where the system can differentiate between behaviors that relate to an eye blink and a person looking down. Thus a cluster of behaviors relating to eye blinking do not include behaviors relating to looking down.).

31.   **Claims 9 and 10:** Al Bandar discloses clusters of the same behaviors (P[0087]: group data for

one channel (i.e., one behavior) and different behaviors (P[0098]: a vector is produced that

represents all channel statistics).

32.   **Claims 14 and 15:** Al Bandar discloses questions posed and answers (i.e. statement made).

(P[0095]).

33.   <u>Claims 11 and 17</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Al Bandar et

al. (US Pub. No. 2004/0181145, hereinafter referred to as "Al Bandar") in view of Greenfield ("It's

Illegal to Lie to Stockholders, but Not to Employees; [Metro Final Edition]", The Sacramento Bee.

Sacramento, Calif.: Jul 6, 1998, pg. B.5) in view of Johnson, JR. (US Pub. No. 2002/0062089,

hereinafter referred to as "Johnson").

34.   **Claims 11 and 17:** Al Bandar does not disclose indicating a likelihood of deception based on the

number of deceptive behaviors in a cluster.

35.   Johnson, however, discloses computing a ranges of scores based on the number of markers for

indicating probable deception, probable truth and indeterminate. (P[0092]).

36.   Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention

to have included indicating a likelihood of deception based on the number of behaviors, as

disclosed by Johnson, in the system of Al Bandar for the motivation of correlating the behavior

data to a summary indicator of deception to allow quick identification of a subject's responses

with regard to overall deception.

37.   <u>Claims 18-19</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Al Bandar et al.

(US Pub. No. 2004/0181145, hereinafter referred to as "Al Bandar") in view of Greenfield ("It's

Illegal to Lie to Stockholders, but Not to Employees; [Metro Final Edition]", The Sacramento Bee.

Sacramento, Calif.: Jul 6, 1998, pg. B.5) in view of Gevins et al. (2003/0013981, hereinafter

referred to as "Gevins").

38. **Claims 18 and 19:** Al Bandar discloses obtaining a second disclosure (P[0110-0111]). It is

obvious that the reviewing and annotating, as discussed above with respect to claims 1 and 6

would be performed for the second disclosure. Al Bandar does not explicitly disclose performing

a comparison of the two records.

39. Gevins, however, at P[0015-0016] discloses using an individual's own prior baseline data to

measure subtle changes in the individuals functioning over time.

40. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention

to have included comparing two records of an individual to identify behaviors as disclosed by

Gevins, in the system of Al Bandar for the motivation of measuring subtle changes with respect to

the individual over time. (Gevins; P[0015]).

Response to Arguments

The Examiner has reviewed Applicant's arguments and has addressed them according within the

body of the rejections. The Examiner, in particular, has pointed to citations within Al Bandar to

teach various aspects of clustering behaviors.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of

the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date

of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabrielle McCormick whose telephone number is (571)270-1828. The examiner can normally be reached on Monday - Thursday (5:30 - 4:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 571-272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. M./
Examiner, Art Unit 3629

/JOHN G. WEISS/
Supervisory Patent Examiner, Art Unit 3629